Annual Report for the Fiscal Year Ended July 31, 1981

Litton serves worldwide markets with high technology products and services designed for commercial, consumer, industrial, professional and defense related applications. The company's proprietary research and development efforts and its broad scientific base are reflected in the more than 5,000 U.S. and foreign patents and patent applications, and approximately 2,000 registered Litton trademarks. More than 14,000 Litton scientists, engineers and technicians are working to advance the company's leadership position in its major business areas — Advanced Electronic Systems, Business Systems, Electronic and Electrical Products, Industrial Systems and Services, and Marine Engineering and Production.

Financial Highlights

		Fiscal Year 1981	Fiscal Year 1980	Fiscal Year 1979
Sales and Service Revenues		**$4,942,835,000**	$4,246,532,000	$4,087,809,000
Net Earnings:	Operations	**$ 306,502,000**	$ 275,172,000	$ 172,211,000
	Currency Adjustments	**(891,000)**	1,612,000	(9,333,000)
	Gain on Sale of Subsidiary	**5,955,000**	14,037,000	26,009,000
	Total	**$ 311,566,000**	$ 290,821,000	$ 188,887,000
Earnings per Share:	Operations	**$7.63**	$6.87	$4.25
	Currency Adjustments	**(.02)**	.04	(.24)
	Gain on Sale of Subsidiary	**.15**	.36	.67
	Total	**$7.76**	$7.27	$4.68

To Our Shareholders:

Litton Industries, Inc.
& Subsidiary Companies

Litton's record performance in fiscal 1981 is a direct result of key policy and operations decisions made over the past few years. An uncertain economy and continuing high interest rates made liquidity an especially important factor in our planning. And soft markets at home and abroad compelled particular care in the setting of priorities.

On the cover we quote from last year's annual report our intent ***to seek present opportunities in markets related to energy, productivity and defense, and to create new opportunities with our own technology.***

Litton's present strength confirms that the key decisions made in establishing these priorities were right. Our liquidity has allowed us more flexibility in a capricious economy, and the broad scope of our businesses enabled us to focus on markets that were strongest. In fiscal 1981, our revenues were the highest ever, more than two-thirds of which came from energy, productivity and defense related businesses. Profits were the highest in history, even after record research and development expenditures. Despite an uncertain economic climate, Litton's sales grew at an annual rate of 16 percent.

Doubling our 1979 and tripling our 1977 capital investments, the company spent $291 million in 1981 to acquire new productive facilities and to improve those we have. Since 1975 we have invested over $1 billion to give Litton the most efficient tools and facilities with which to grow.

We gave research and development the highest priority in our business planning. Litton is dedicated to technological leadership in all of our businesses and is proud of the advances our products have brought to the commercial, consumer, industrial, professional and defense markets we serve throughout the United States and the free world. In 1981 we spent $251 million — over $1 billion since 1975 — developing our products and researching the technologies on which our continued business leadership will depend.

Our progress reflected strong financial management. We strengthened our asset base, reduced debt, and improved the turnover rate of receivables and inventories. These actions served us well. We ended the fiscal year in the strongest financial position in the company's history.

- Earnings from operations reached $306.5 million or $7.63 per share.
- Net earnings, including a gain from the sale of a subsidiary and a loss from foreign currency translation, were $311.6 million or $7.76 per share.
- Sales reached $4.943 billion.
- Order backlog at year-end was $4.4 billion.
- Shareholders' investment reached $1.423 billion.

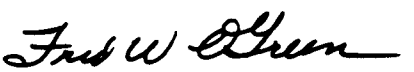
The Board of Directors continued the 2 percent stock dividend and increased the cash dividend to 35 cents per share per quarter for an annual rate of $1.40 per share. The Board also authorized simplification of our capital structure by the redemption of all outstanding shares of the Convertible Preference Stock, Participating Series (par value $2.50 per share), and of the Series A $3 Cumulative Convertible Preferred Stock.

Litton believes in and supports a free market system which is as fundamental to our future as it has been for each of our first 28 years. Our strength and vitality have developed from investments in products and services of the highest quality and in markets demonstrating the greatest potential.

Litton's accomplishments have benefited more than just the company and its shareholders. We distributed a payroll in fiscal 1981 of more than $1.4 billion among 77,000 employees; we spent nearly $2 billion with thousands of suppliers of goods and services; and we operated production and research facilities in over 130 communities in 38 states and 14 other nations.

We are as optimistic about the future as we are proud of our past. The combination of confident shareholders, dedicated employees, and managers responsive to business opportunities will assure Litton's continued growth.

Charles B. Thornton
Chairman of the Board of Directors



Fred W. O'Green
President and Chief Executive Officer

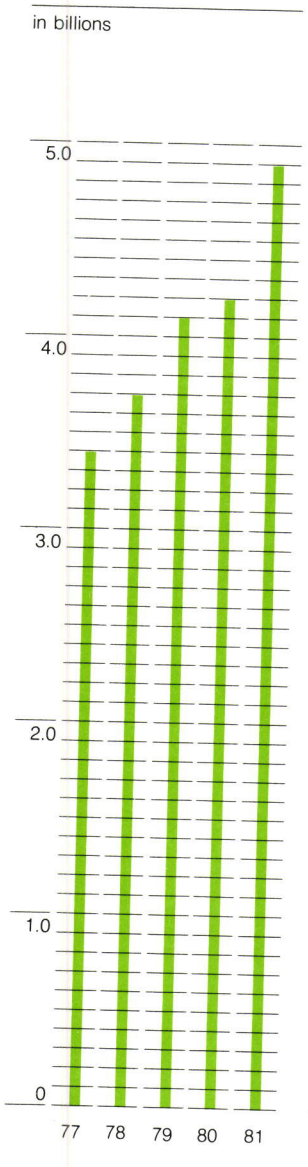
October 1, 1981

On August 4, 1981, Chairman Charles B. Thornton, following long-range plans, recommended that Fred W. O'Green, President and Chief Operating Officer for the last nine years, also be named Chief Executive Officer. The Board of Directors unanimously agreed and Mr. O'Green assumed this position on October 1, 1981.

Operating Performance Indicators

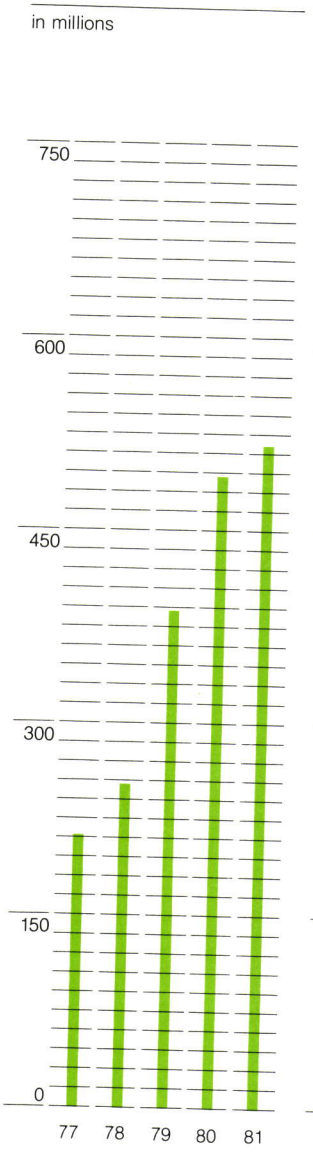
Litton Industries, Inc.
& Subsidiary Companies

Sales

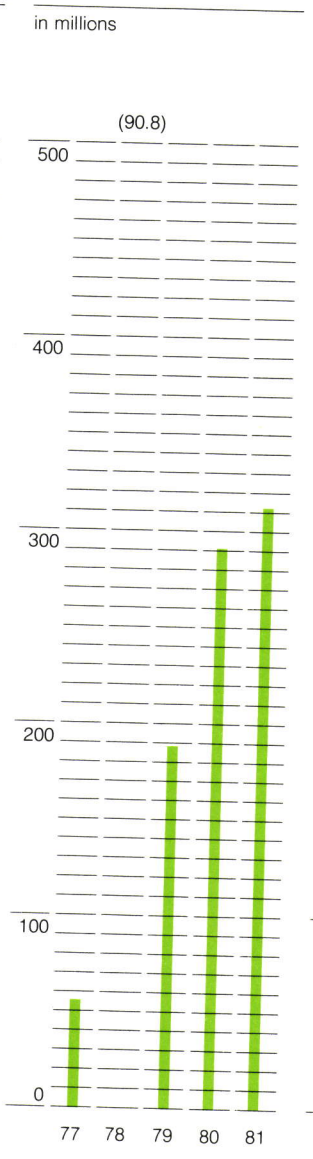


Operating Profit

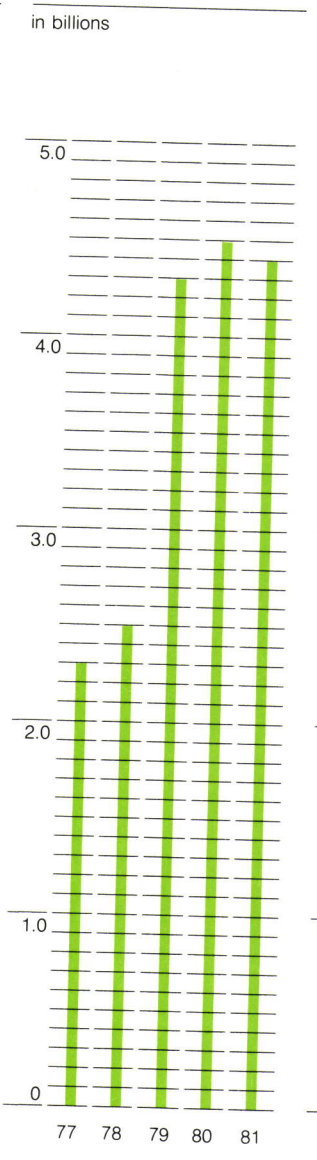
(Before currency adjustments and 1978 Navy contract settlement)



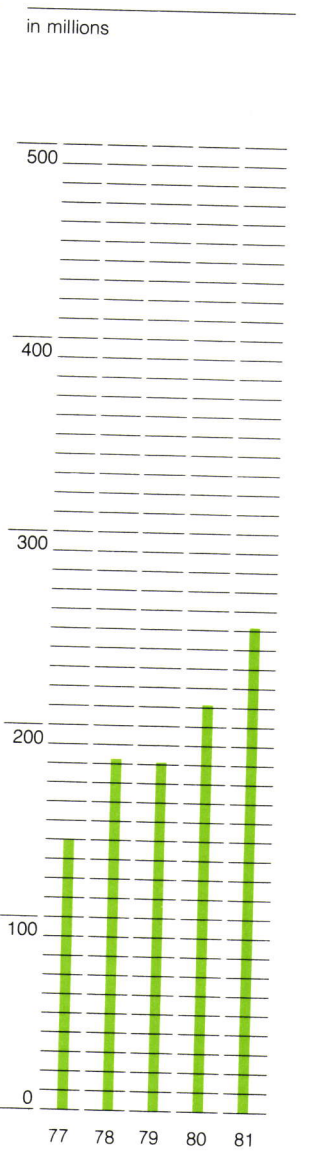
Net Earnings



Backlog



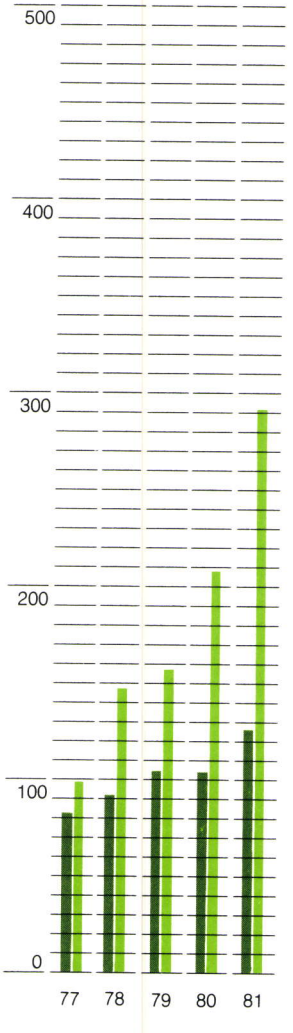
R&D Expenditures



Capital Investment & Depreciation

in millions

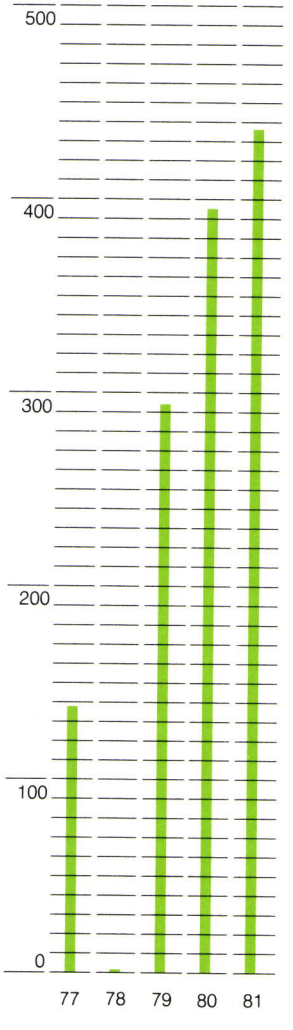
Investment
Depreciation



Cash Flow from Operations

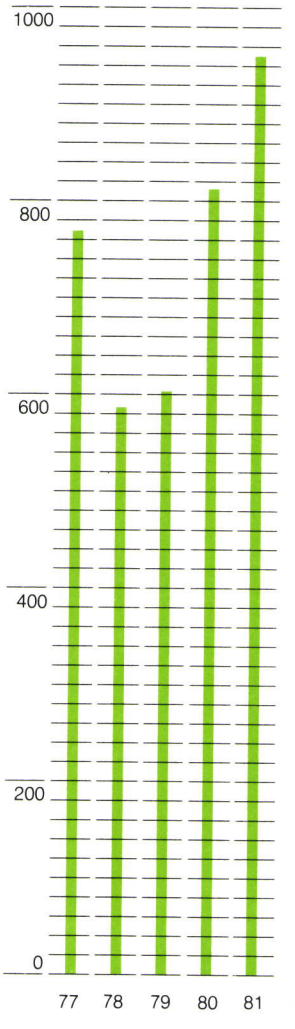
(Net Earnings plus Depreciation)

in millions



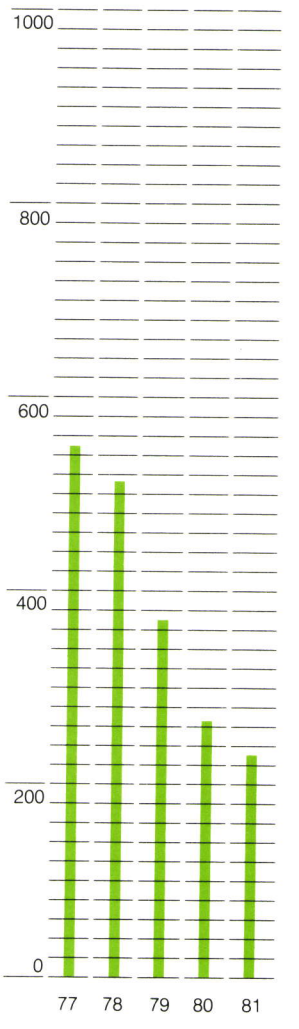
Net Working Capital

in millions



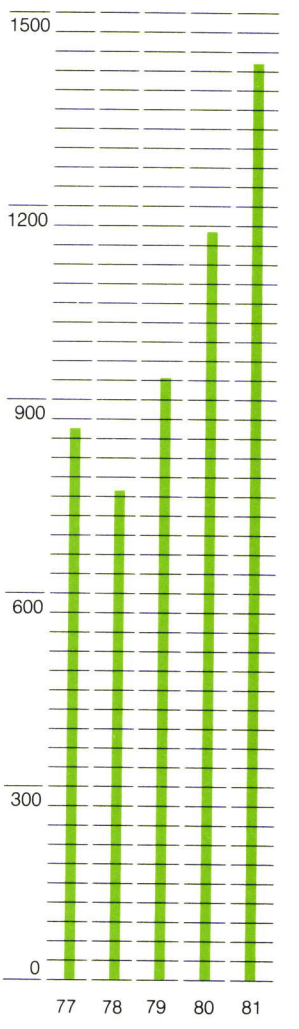
Long-term Obligations

in millions



Shareholders' Investment

in millions



Operations Review

Litton Industries, Inc.
& Subsidiary Companies

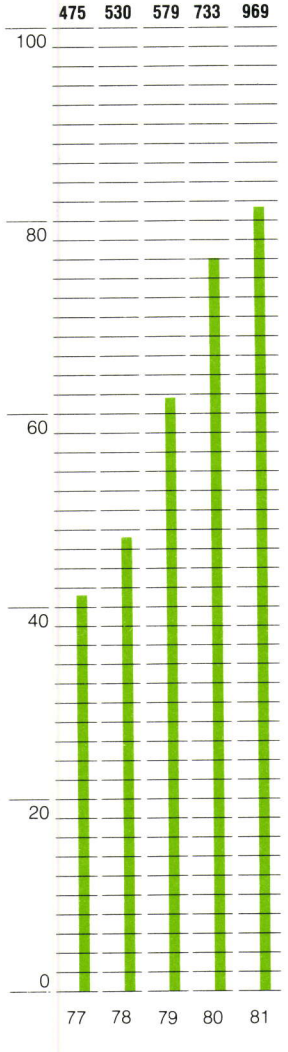
Segment Results
(millions of dollars)

	Fiscal Year 1981	1980
Sales	$969.3	$733.1
Operating Profit	81.5	76.0
Capital Expenditures	57.7	39.4
Depreciation	17.0	11.3
R & D	161.9	123.5
Backlog	2,292	2,375
Number of Employees	14,800	14,100

Advanced Electronic Systems

Operating Profits

In millions based on sales of:



Advanced Electronic Systems divisions achieved new performance records in 1981. All 10 divisions contributed to this success as important new programs moved from research and development into production. New applications continue to evolve from existing technology, and R&D work currently underway will enable Litton to participate in a number of key defense programs as they move to production stages during the '80s.

Shipments of inertial navigation systems continued for such advanced U.S. Navy and Air Force aircraft as the F-18, F-15 and A-10, and the Guidance and Control Systems (G&CS) and Litton Systems Canada Limited (LSL) divisions began production deliveries for the cruise missile program. In 1981, G&CS and LSL were awarded cruise missile contracts totaling $129 million, and they will share future multiyear procurements.

Data Systems division received additional awards totaling $144 million from the U.S. Army for Tacfire automated artillery fire control systems. This long-run program calls for delivery of 168 systems.

Follow-on production contracts for the Missile Minder air defense system totaling more than $120 million were received from NATO and the Republic of Korea. NATO will deploy these systems in Italy and France.

Work on the air defense system for the Kingdom of Saudi Arabia is progressing on schedule, and negotiations for additional defense work for Middle Eastern countries are continuing.

Staffing of Data Systems' New Orleans Engineering Center passed 200 by year-end, as requirements for engineers and technical support people continued to be met for work on such programs as defense system simulators, computers and command, control and communication systems. Operational since January 1980, the Center has been successful in providing employment opportunities for skilled people in the Gulf Coast region.

Aero Products division won new customers for its LTN-90 laser gyro inertial reference system, with Saudi Arabian Airlines, Kuwait Airlines, Wardair, Nigerian Airlines and Thai International ordering the units for their wide-body A300-600 and A310 aircraft. Aerospatiale, producer of both planes has specified the LTN-90 as standard equipment. U.S. Navy and Portuguese Air Force orders for a total of 259 LTN-72 inertial systems for cargo and transport type aircraft continued to reflect the military's confidence in these units currently in quantity production for commercial aircraft. The division — a world leader in airborne radio navigation — has delivered over 1,000 Omega systems for commercial and military aircraft use.

Litton won a $30 million contract to supply cockpit display units for Canada's CF-18 fighters. With this new product line, LSL also will participate in supplying displays for other versions of the F-18 and other aircraft designs.

In Europe, Litton continued delivery of avionics systems for NATO aircraft and marine navigation systems for patrol vessels. Development progressed on automated field artillery systems for the Italian Army.

Amecom division delivered the high frequency radio communication system for the first of the Navy's new Aegis guided missile cruisers and is in production for the second ship of the series. Multiyear production continued on electronic intelligence systems for the Navy's E-2C surveillance aircraft and the Air Force RF-4C reconnaissance fighter. These systems represent Amecom's primary product line. The division also is under contract to supply receivers for the new, Navy-managed Airborne Self-Protection Jammer development program. In addition, Amecom won another FAA contract for a large, digital voice communication switching system for air traffic and range control at Nellis Air Force Base in Nevada.

The company made first deliveries to the U.S. Army of the vehicle-mounted Position and Azimuth Determining System (PADS) for artillery batteries, and received the Army's 1981 production buy for 60 PADS systems in this multiyear program. A Litton inertial reference system and gun stabilization sensors were in the winning design of the Division Air Defense System selected by the Army.

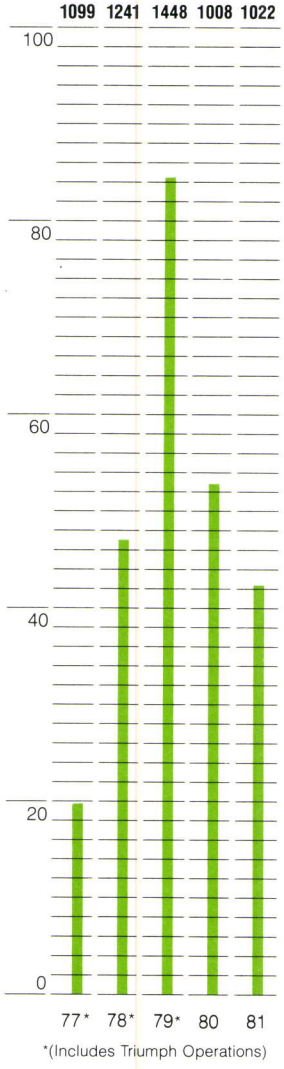
Segment Results

(millions of dollars)	Fiscal Year 1981	1980
Sales	$1,022.3	$1,008.4
Operating Profit	42.5	53.0
Capital Expenditures	36.7	38.1
Depreciation	22.0	23.4
R & D	17.5	16.3
Backlog	75	99
Number of Employees	16,600	17,900

Business Systems

Operating Profits

In millions based on sales of:



*(Includes Triumph Operations)

Expanded product lines in Business Systems divisions are expected to more than offset the effect of an economy that softened in 1981. New products have been introduced to reach customers across a broader spectrum of the business market and new productivity features have been added to assure customers the highest value for their investment.

In 1981, Monroe added "Systems for Business" to its name to emphasize service to the automated office market with its line of high technology products and systems. Manufacturing of three advanced multifunction microcomputers for business and education applications began in its Lexington, South Carolina plant. The division also began production of the new 2700 Series calculators, which represent a full-function product line offering customers better price/performance.

A highly reliable, compact plain paper copier is being added to the Monroe line. This product will be fully supported by a major national key account program and the division's strong 350 office nationwide sales and service network. An aggressive marketing program, promoting the new copier's outstanding quality and reliability, is designed to support market penetration.

The Monroe Bond Trader™ calculator fulfilled a new market need resulting from rising interest rates and recorded strong sales in 1981. Sales increases of 30 percent were gained for this special calculator which provides expanded bond yield information for investment bankers and brokers. Sales of the LCC-60 ledger card computer continued at the 1980 record pace.

Sales of business calculators were off primarily due to the effect of the high interest rates on lending institutions and businesses engaged in credit contract sales to the public. Significantly reduced spending at every level of government, particularly federal, also had an impact on sales of all business products, including Monroe's printing and display calculators.

Sweda International division strengthened its market position by introducing new versions of its L-50 electronic cash register (ECR) and 80-S supermarket point-of-sale (POS) system, both with scanning features. The ECR offers either laser countertop or hand-held "wand" scanning, enabling the division's sales force to better serve the smaller grocery, convenience and drugstore markets now requesting the scanning function.

Although Sweda experienced lower than expected growth in orders because of high interest rates and delays in new tax law enactment, a strong marketing program raised full-year sales 9 percent over 1980. Sales in the final month reached a record level. The division's 1981 business in Mexico was especially strong.

Sweda in 1981 began production and installation of its new AT-1 automatic dialing credit authorization terminal. Initially designed for the Visa credit network and targeted for other credit applications, the terminal is able to validate credit in less than 30 seconds.

In this business segment, the Kimball Systems division also introduced a new Vital™ computer-controlled tag and label printing system for the industrial market. Additionally, Kimball introduced the Kode™ 410, a middle range model of its optical character recognition tag and label encoder for retail chains.

The Business Furniture, Fixtures and Office Supplies divisions achieved record results for the year as their new products and systems entered the marketplace. The new systems are designed to meet the requirements of automated offices which, with open plan architecture, provide a more efficient work environment.

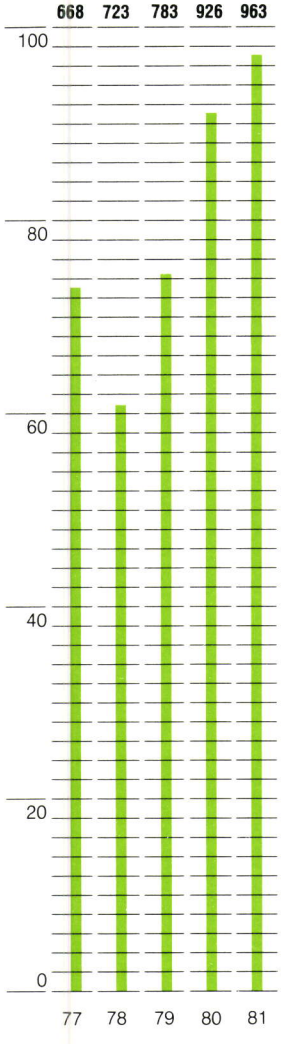
Segment Results

(millions of dollars)	Fiscal Year 1981	1980
Sales	$963.0	$925.6
Operating Profit	97.2	91.0
Capital Expenditures	34.0	27.1
Depreciation	17.0	12.8
R & D	51.1	49.2
Backlog	341	343
Number of Employees	15,900	16,100

Electronic and Electrical Products

Operating Profits

In millions based on sales of:



The Electronic and Electrical Products business segment achieved record sales and earnings in fiscal 1981.

Sales to customers serving defense related markets more than offset declines in commercial markets, allowing component sales to reach new records.

Litton's Electron Tube division reported strong sales directly to the armed services, reflecting increased order rates for its traveling wave tubes and amplifiers. The division's Electro-Optics department, for the second year in a row, was awarded the largest share of the U.S. Army's buy of PVS-5A night vision devices. This year's contract was for over 3,000 night vision units.

Advanced Circuitry division, a leader in production of complex electronic circuit boards, added a new line of precision press-fit custom backpanels for the computer and telecommunications industries. With the continuing expansion of these two industries, the market for these products is expected to grow by more than 30 percent a year.

Jefferson Electric division introduced a new constant voltage regulator and line conditioner which is used to protect sensitive electronic equipment such as computers from high frequency electrical noise. The new model also provides battery backup protection where electrical power interruption cannot be tolerated. Unprecedented expansion in the use of minicomputers and distributed microprocessors favors the growth of this business.

Louis Allis division set new performance records. It experienced increased demand for its newest energy-efficient motor line, especially from major utilities. As part of the U.S. government's emergency program for stockpiling crude oil, the division won a major competitive contract to provide 48 large pumping motors, delivering a total of over 85,000 horsepower, to pump oil into underground reservoirs. Louis Allis also broadened its product base with new alternators for use in the wind turbine field.

A longtime supplier of power transformers to the electronic equipment market, the Triad-Utrad division registered another increase in its sales of components to the growing microwave oven industry. The division developed another energy conservation component, an electronic ballast for fluorescent lights which achieves a 25 percent power saving.

In the medical products area, the Hellige division introduced a new patient monitoring system at the World Congress for Anesthesiology in Hamburg and reported a substantial number of bid invitations for major hospital installations. In the U.S., the Litton Medical Electronics division began to market this new modular, microprocessor-based patient monitoring equipment. At a great saving of medical personnel time, the system measures all of a patient's vital signs during surgery, in post operative intensive care wards and in coronary care centers.

Litton Bionetics division, engaged in biomedical research and services for commercial and government markets, continued emphasis on the government's cancer research program and accelerated its commercial business activity during 1981. Improving techniques for short-term biosafety testing of prospective product ingredients provided customers in the food, drug, cosmetic and chemical industries with earlier assurance of product safety. Bionetics also began work on a facility for full-scale production of its new line of laboratory products that can simply and reliably detect the presence or history of certain diseases in humans.

Industry unit sales of consumer countertop microwave ovens increased by 32 percent during the fiscal year, reflecting the fastest growing segment of the home appliance market. Litton Microwave Cooking Products division, a major participant in this market, outperformed the industry. Early in July, the division introduced its new Litton-Aire™ over-the-range model. The surge of orders entered for this new product exceeded the division's early market expectations, forcing rapid production build up. In addition, the division introduced two new models of its Menumaster® Systems 80 Series ovens for commercial food service.

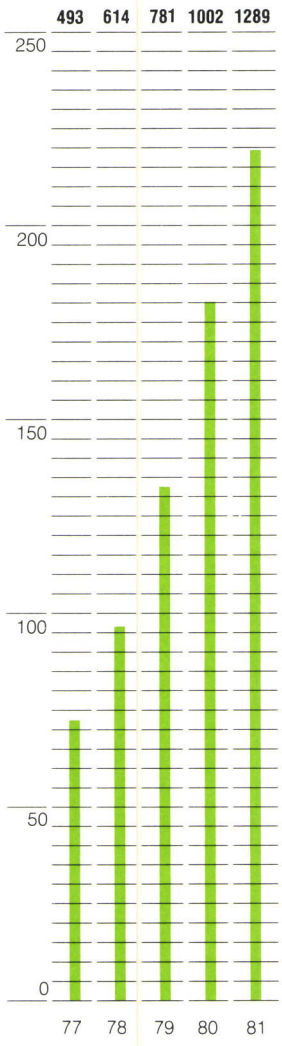
Segment Results

(millions of dollars)	Fiscal Year 1981	1980
Sales	$1,288.8	$1,002.0
Operating Profit	219.4	180.6
Capital Expenditures	148.1	87.4
Depreciation	51.7	38.7
R & D	20.0	20.5
Backlog	536	481
Number of Employees	16,900	15,300

Industrial Systems and Services

Operating Profits

In millions based on sales of:



This segment of Litton's business, primarily serving energy and productivity markets, recorded increases of 29 percent in sales and 21 percent in profits in fiscal 1981.

In the machine tool market area, Lucas Machine division introduced the first of its more sophisticated tool changer machines. The Lucas line now includes machines with capacities for handling up to 120 tools. The division also introduced a new memory system as an option available with its manual data input control. The system, shown at the International Machine Tool Show, records all operations performed by the manual data input system. After machining a run of parts, the stored program can be transferred to any compatible storage medium such as disk or tape until needed for the next run.

Lucas doubled its backlog toward the close of the fiscal year as a result of booking new orders for machines primarily in the oil equipment industry.

New Britain Plastics Machine division introduced its Command II dedicated computer which adds a process control feature to its production machines. Research and development programs, for injection molding of powdered metals that would lead to the production of parts more intricate than could be made with previous technology, are progressing rapidly at the New Britain Plastics and Merriman divisions.

Production engineers at the Contromatics division developed a new, competitive line of TRISEAL™ three piece, general purpose ball valves for industrial use. Three major U.S. chemical companies ordered more than 24,000 units soon after the division brought TRISEAL valves to market early in the fiscal year.

Landis Lund division developed new multiple grinding techniques for crankshaft pins that will improve productivity in the automotive industry. The division has demonstrated the method to automobile producers and sees a large potential market for this system in Europe.

Serving the material handling systems markets, the Litton Unit Handling Systems division at year-end reported a 40 percent increase in its order backlog. The division is expanding its facilities to provide more than 100,000 square feet of additional manufacturing area and office space for systems engineering at its Florence, Kentucky operations.

In June, the Robins Engineers and Constructors division received a significant turnkey contract valued at more than $20 million for the complete design and installation of a petroleum-coke material handling system for the Chevron USA refinery and shipping terminal at Pascagoula, Mississippi. The system, incorporating rail-mounted crusher cars, overland conveyors and traveling stackers, will load ships at the rate of 2,000 tons per hour.

Resource Exploration divisions all contributed to a record business year, with sales up 56 percent. Spiraling costs associated with exploratory drilling for oil and natural gas have focused attention on the acute need for more accurate seismic data. Western Geophysical division's extensive experience in the seismic field has positioned the division to capitalize on its advanced technologies and data processing methods. The division has grown to become the largest resource exploration company in the free world, and its pace of activity has shown no evidence of slowing.

In support of these opportunities, Litton in 1981 invested more than $100 million, almost 40 percent of the company's total capital spending budget, in new technological and productive capacity, primarily in marine data collection and processing systems and in expanded computer installations for the growing quantity of data handling required.

Western Geophysical added six new seismic vessels to its fleet. The division now has more than 120 exploration crews worldwide. Computer service capabilities were expanded in England, Canada and three locations in the U.S.

Litton Resources Systems division also had a record year in 1981. This division is a major international source of complete seismic exploration systems which include electronic digital recording and data processing equipment, land and marine seismic detectors and data transmission cables.

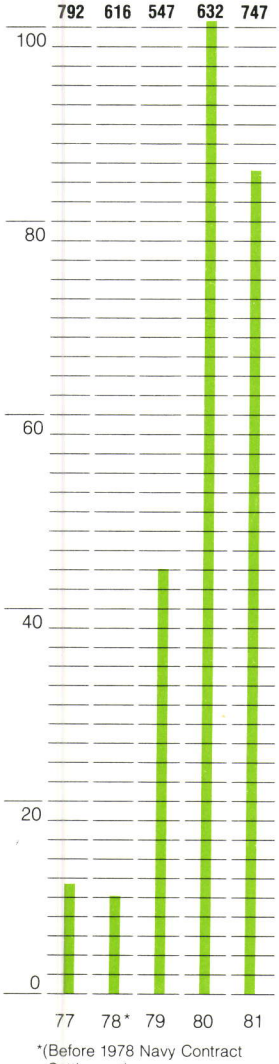
Segment Results

(millions of dollars)	Fiscal Year 1981	1980
Sales	$746.7	$631.7
Operating Profit	84.7	101.8
Capital Expenditures	9.0	16.5
Depreciation	16.7	17.2
R & D	.8	1.1
Backlog	1159	1209
Number of Employees	12,500	12,000

Marine Engineering and Production

Operating Profits

In millions based on sales of:



*(Before 1978 Navy Contract Settlement)

Litton's Ingalls Shipbuilding division in 1981 reinforced its reputation as the U.S. Navy's primary supplier of destroyers and cruisers, and as a major new resource for overhaul of the fleet's surface warships.

In May, the First Lady of the United States, Mrs. Nancy Reagan, christened Ticonderoga (CG 47), the first of the Navy's new class of Aegis guided missile cruisers. Celebration of this milestone in the Navy's most important surface combatant ship program brought Secretary of Defense Caspar W. Weinberger, Secretary of the Navy John F. Lehman, Jr., Chief of Naval Operations Adm. Thomas B. Hayward and Aegis Shipbuilding Project Manager Rear Adm. Wayne E. Meyer to Ingalls' production facility to join thousands of other government officials, Litton employees and their families. At the event, Secretary Weinberger praised Ingalls' ". . . impressive physical plant, management skills and dedicated work force . . ."

During the year, Ingalls started construction of the second ship of the class, continued procurement of long-lead time materials and equipment for the third and fourth Aegis cruisers and received a contract to begin procurement for the fifth ship, CG 51. Shortly after the year ended, the division received a contract for construction of the third and fourth cruisers.

The first two ships of the new Kidd-class (DDG 993) of guided missile destroyers were delivered in 1981 on schedule and under budget. Work on the third and fourth DDGs neared completion.

An article in the *United States Naval Institute Proceedings* in July 1981 hailed the Kidd-class guided missile destroyers as representing the "non-nuclear standard by which our shipbuilding and ship conversion policies should be guided for the next 10 to 15 years."

Post shakedown work on the 30th Spruance-class (DD 963) destroyer was completed in 1981, and construction progressed on the 31st Spruance ship.

Ingalls has delivered an average of six major combatant ships to the Navy every year since mid-1975, a record unmatched by any other shipyard.

During 1981 the division completed overhaul of the USS Forrest Sherman (DD 931), earned a new contract to overhaul USS Arthur W. Radford (DD 968), installed a vertical launch missile system on USS Norton Sound, the Navy's combat systems test ship, and completed major repair work on USS Pegasus, the Navy's first hydrofoil combatant ship.

Complementing its naval ship construction and overhaul capability is Ingalls' new identification as an important source of offshore oil drilling platforms. During 1981 Ingalls delivered its first jackup unit and first submersible platform. Fifteen additional platforms were under contract for construction as fiscal 1982 started.

Ingalls' performance on the USS Forrest Sherman is expected to lead to significant additional work in overhauling the Navy's destroyer fleet. The year-long overhaul project was completed under budget and within days of the original schedule, despite a 60 percent increase in the original scope of work.

The Navy cited Ingalls as having set new standards for this type of ship overhaul and modification work. The division's performance has established Ingalls as a key facility in supporting the Navy's program for overhauling and maintaining its destroyer fleet.

The surface ship overhaul business area for Litton is expected to continue to expand as the U.S. increases its commitment to a larger and more modern fleet.